

AMENDMENTS TO THE SPECIFICATION:

Please add the following new paragraphs after paragraph [0020]:

[0020.1] In one aspect, a system for delivering a breathing gas to a patient interface is provided. In one embodiment, the system includes a pressure sensor, a blower, a valve, and a controller connected to the sensor, blower and valve. The controller includes a memory having a plurality of executable instructions. The plurality of executable instructions include: i) a first set of instructions sensing a pressure associated with the delivery of the breathing gas to the patient interface, a second set of instructions changing the valve position in response to a change in the sensed pressure, a third set of instructions detecting a start of inhalation state by determining if the valve position has increased beyond a start of inhalation state threshold value, a fourth set of instructions detecting an end of inhalation state by determining if the valve position has fallen below an end of inhalation state threshold value, a fifth set of instructions delivering the breathing gas at least at a first positive pressure above ambient pressure after detection of the start of inhalation state, and a sixth set of instructions delivering the breathing gas at least at a second pressure after detection of the end of inhalation state wherein the second pressure is less than the first pressure.

[0020.2] In another embodiment, the plurality of executable instructions also includes a seventh set instructions delivering the breathing gas from the second pressure to the first pressure according to a predefined function and prior to the detection of the next start of inhalation state. In a variation of this embodiment, the predefined function is a linear function. In another variation of this embodiment, the predefined function is associated with a sensed pressure associated with the patient interface. In still another variation of this embodiment, the second pressure comprises at least an ambient pressure.